

CBRFC 2013 Runoff Recap: Upper Green and Yampa

August 21, 2013

Ashley Nielson

NWS Colorado Basin River Forecast Center





Outline



2013 Conditions Recap

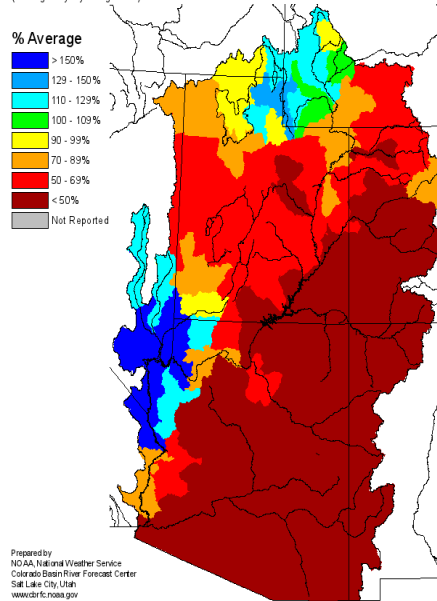
- Precipitation/Temperature
- Snow
- Streamflow

April-July and Peak Flow Forecast Performance

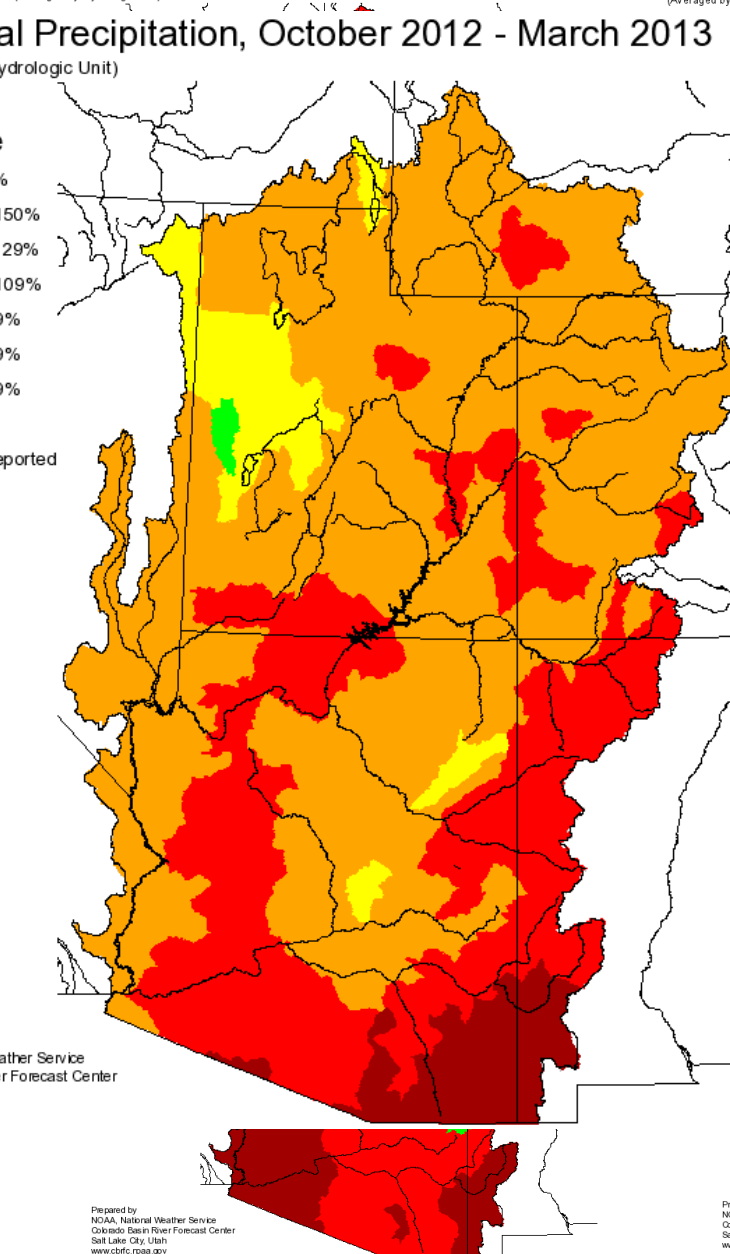
Future forecasts (water supply and climate)

PRECIPITATION

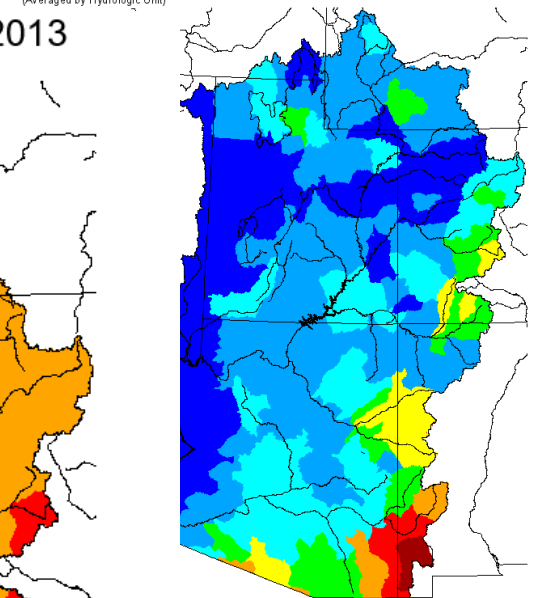
Monthly Precipitation for October 2012
(Averaged by Hydrologic Unit)



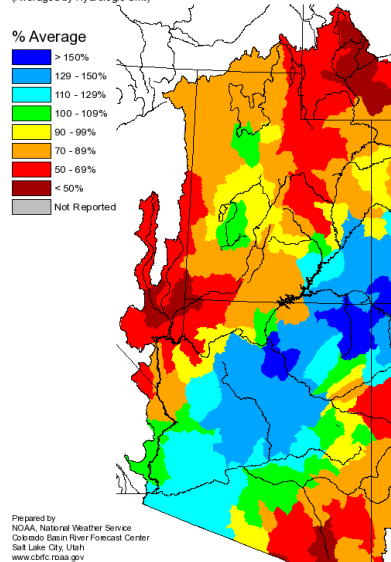
Monthly Precipitation for November 2012
(Averaged by Hydrologic Unit)



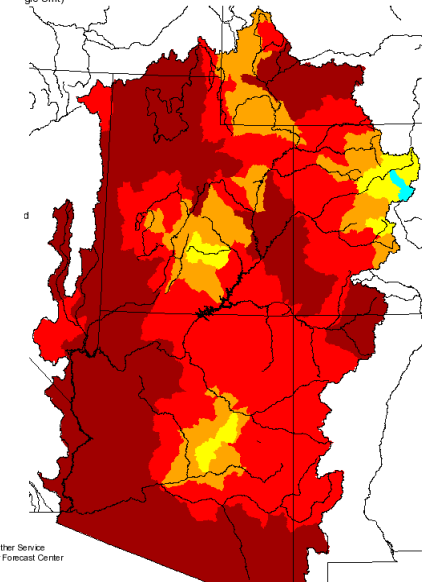
Monthly Precipitation for December 2012
(Averaged by Hydrologic Unit)



Monthly Precipitation for January 2013
(Averaged by Hydrologic Unit)



Precipitation for March 2013
(Averaged by Hydrologic Unit)

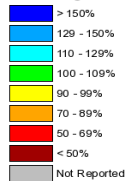


PRECIPITATION

Monthly Precipitation for April 2013

(Averaged by Hydrologic Unit)

% Average



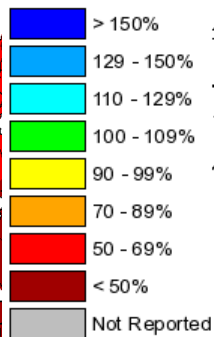
Monthly Precipitation for May 2013

(Averaged by Hydrologic Unit)

Seasonal Precipitation, October 2012 - July 2013

(Averaged by Hydrologic Unit)

% Average

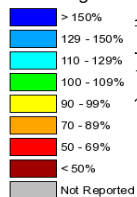


Prepared by
NOAA, National Weather Service
Colorado Basin River Forecast Center
Salt Lake City, Utah
www.cbafc.noaa.gov

Monthly Precip

(Averaged by Hydrologic Unit)

% Average

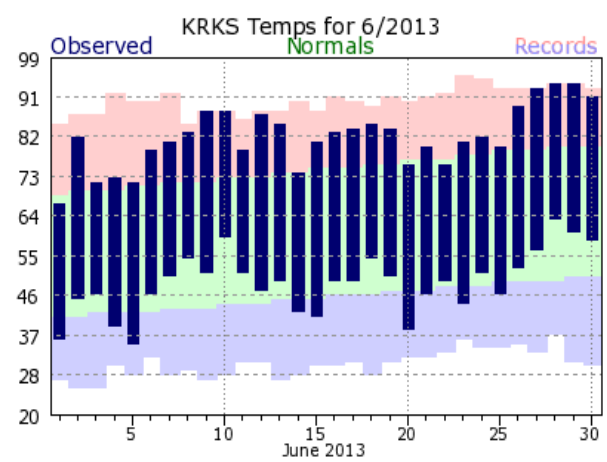
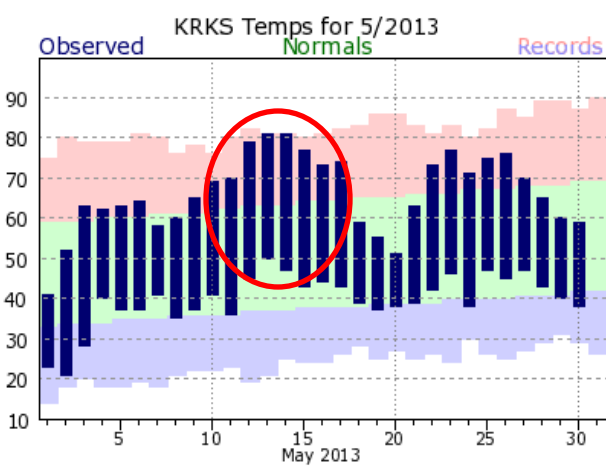
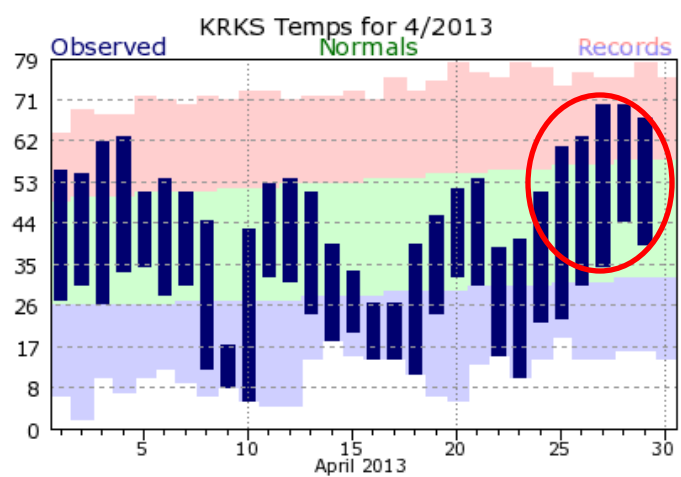
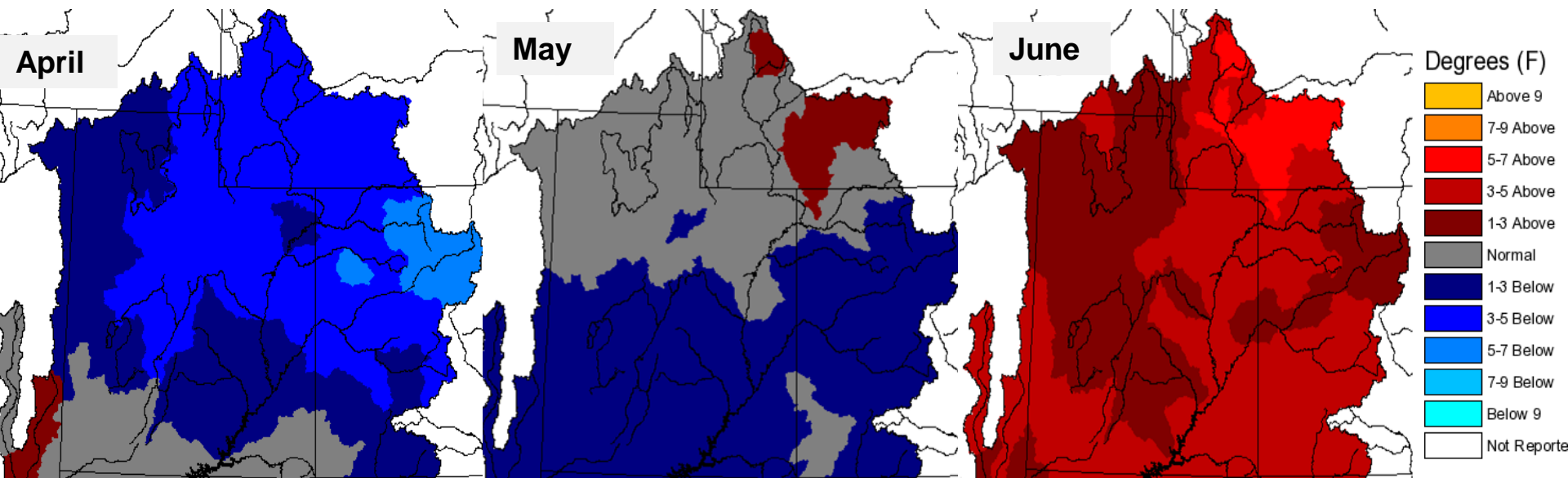


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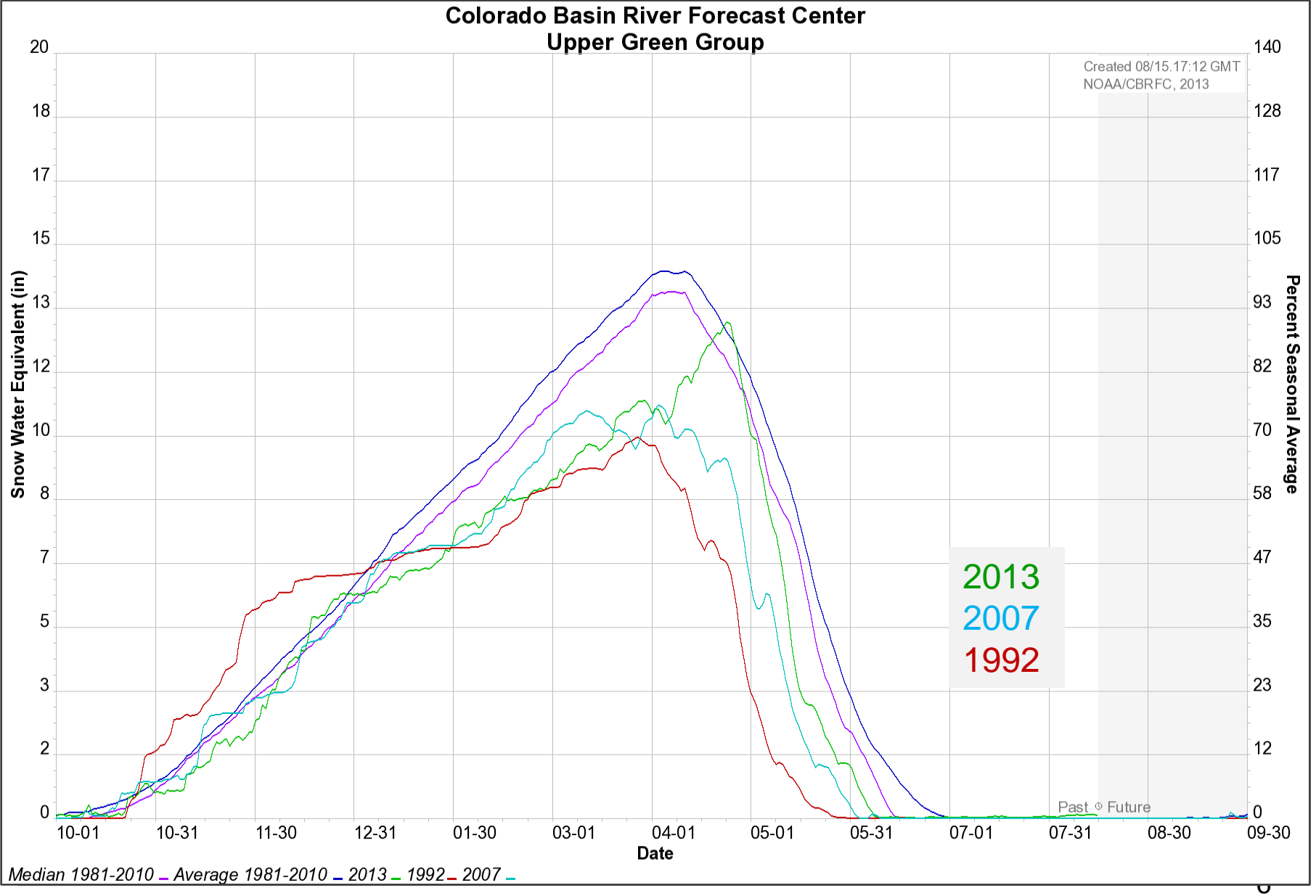
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Monthly Max Temperature Deviation



SNOW: Upper Green

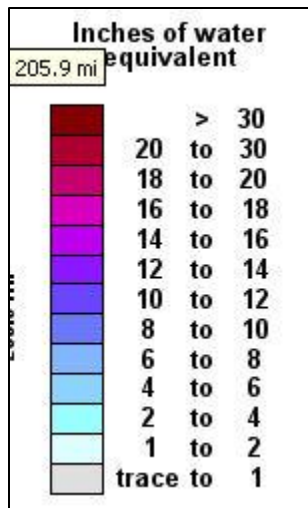
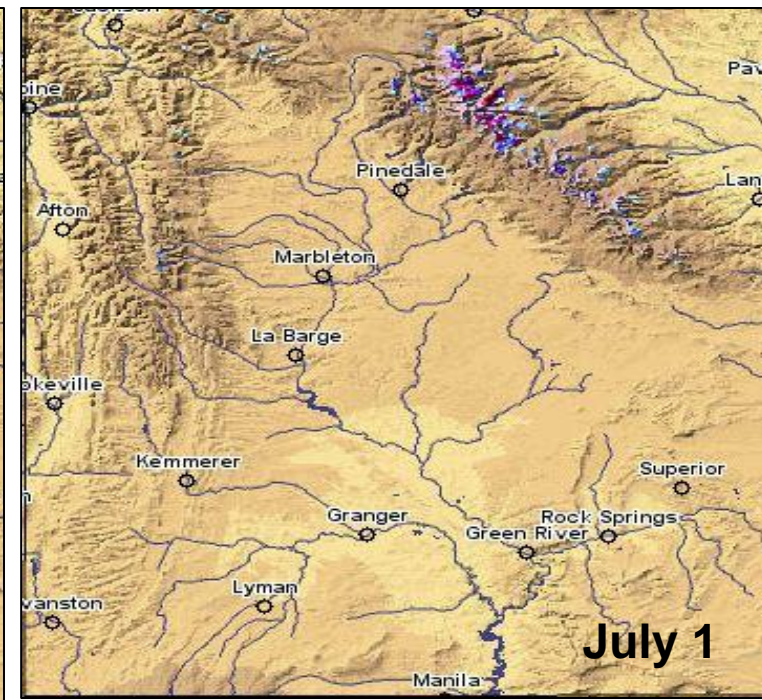
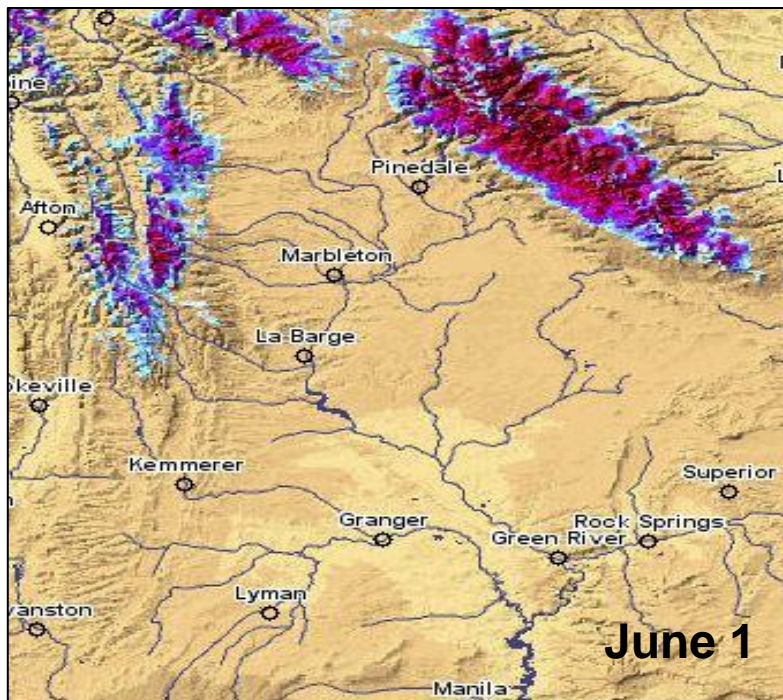
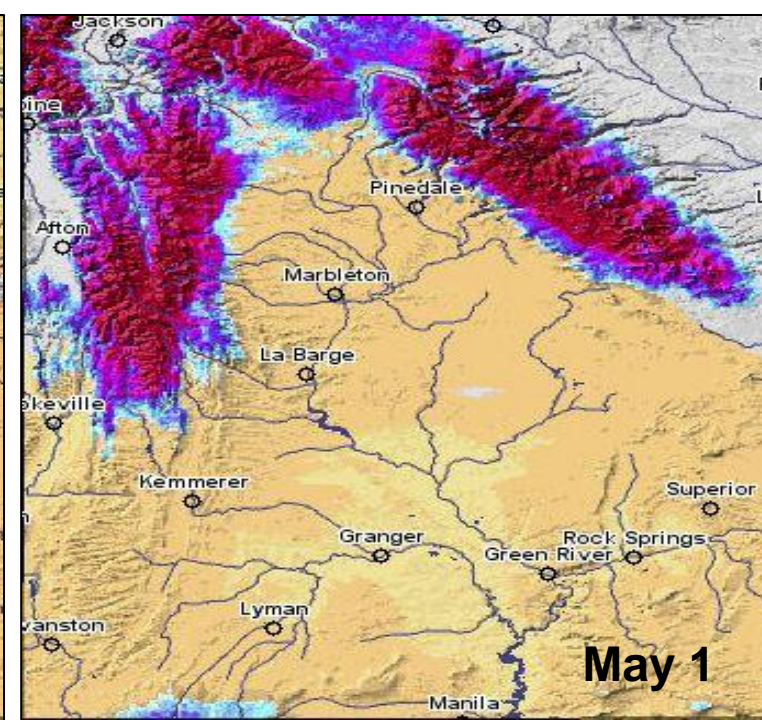
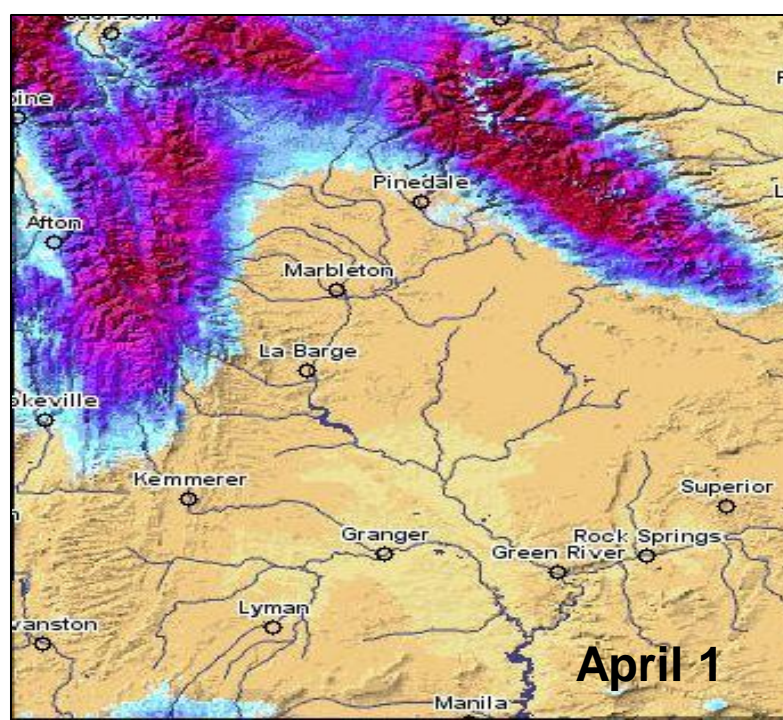


SNOW:

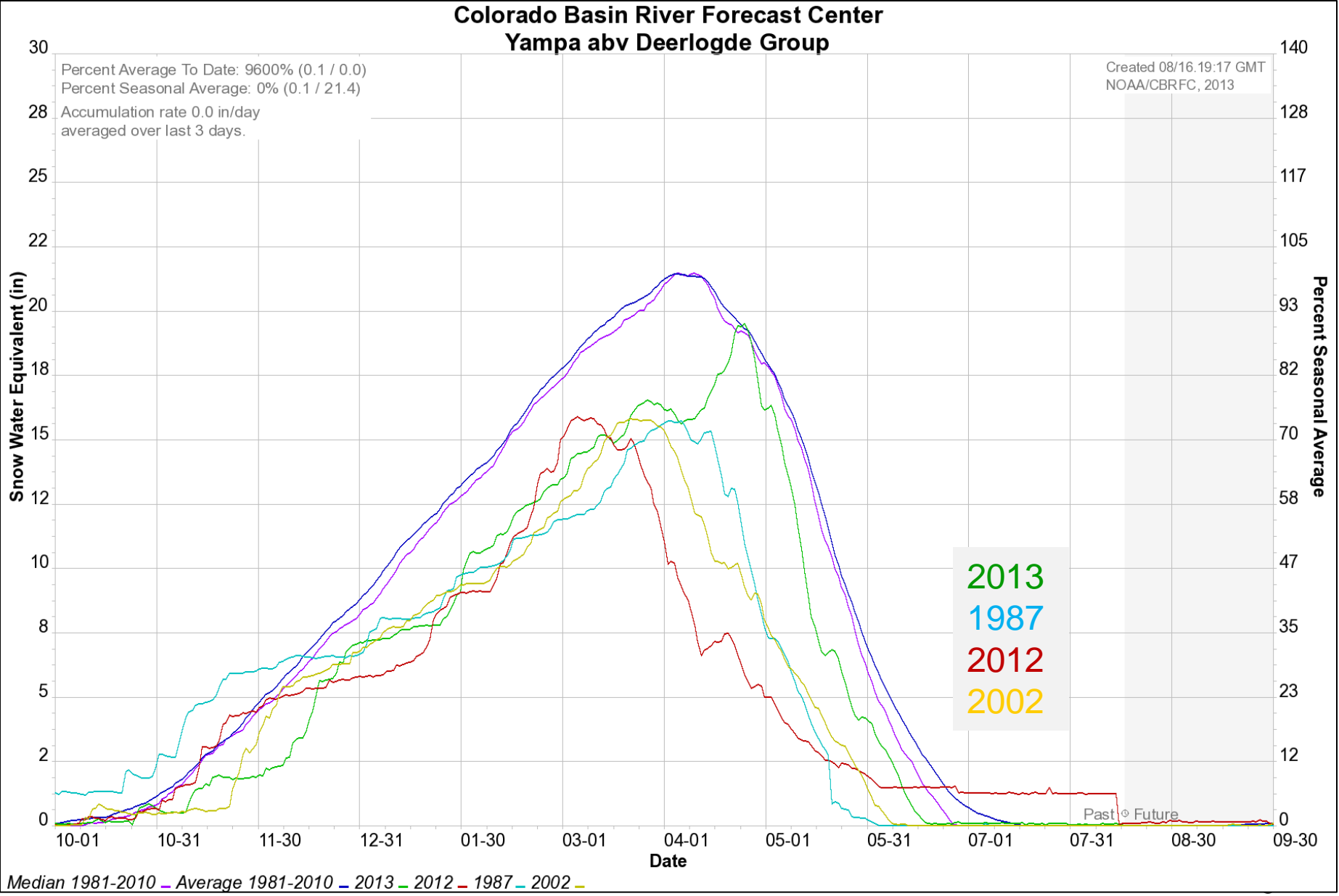
Melt

Progression

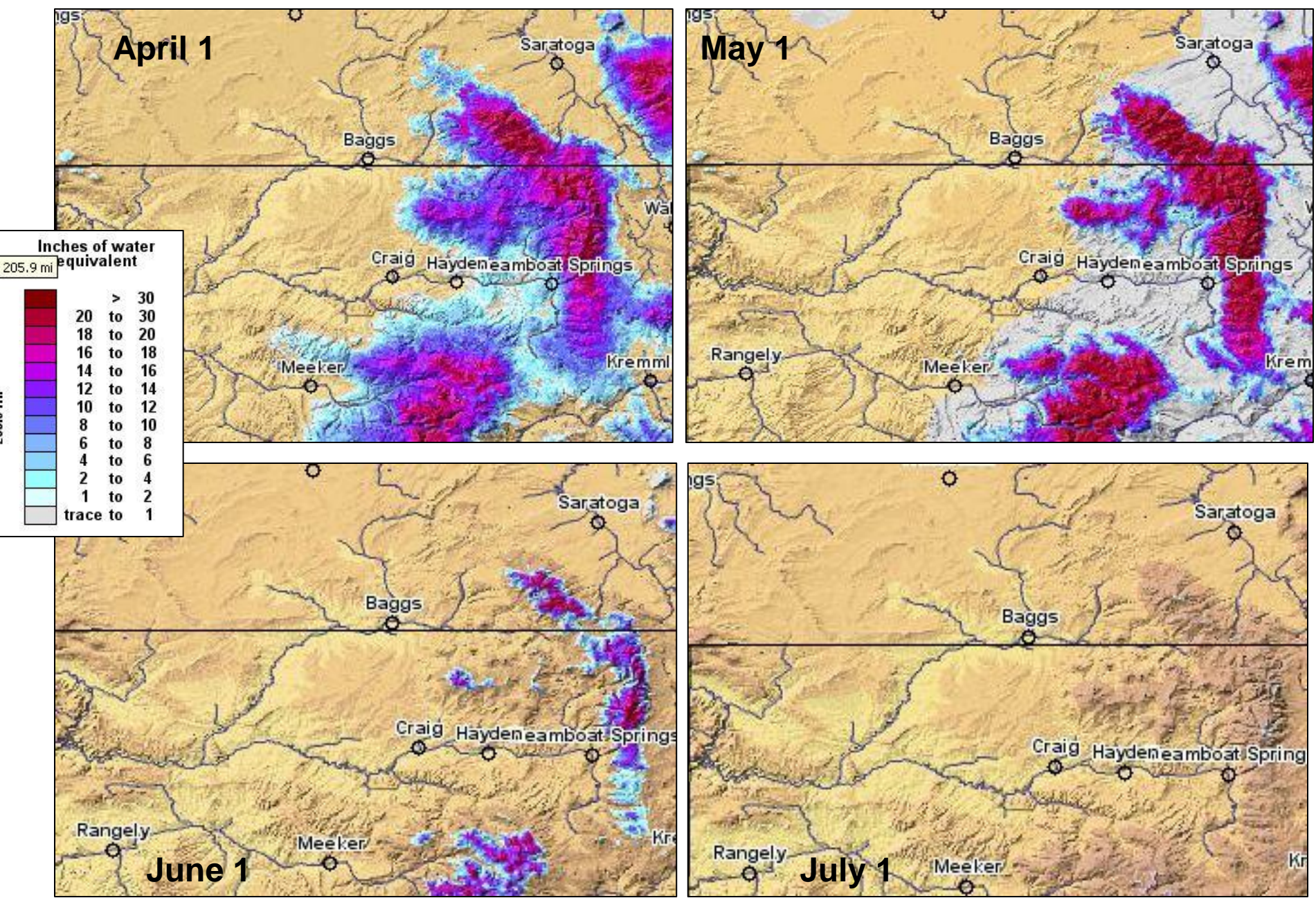
Upper Green



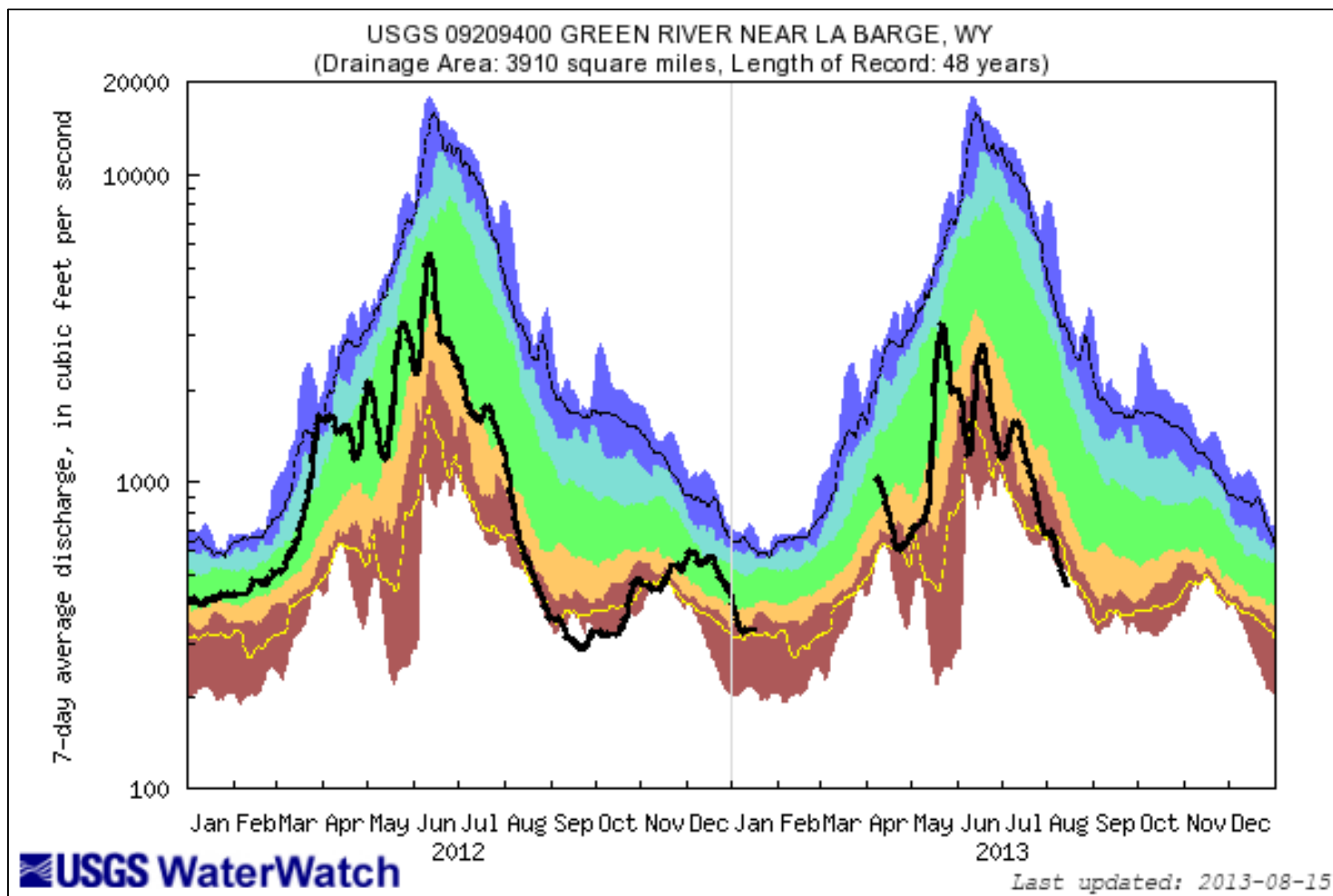
SNOW: Yampa









SNOW: Melt Progression Yampa



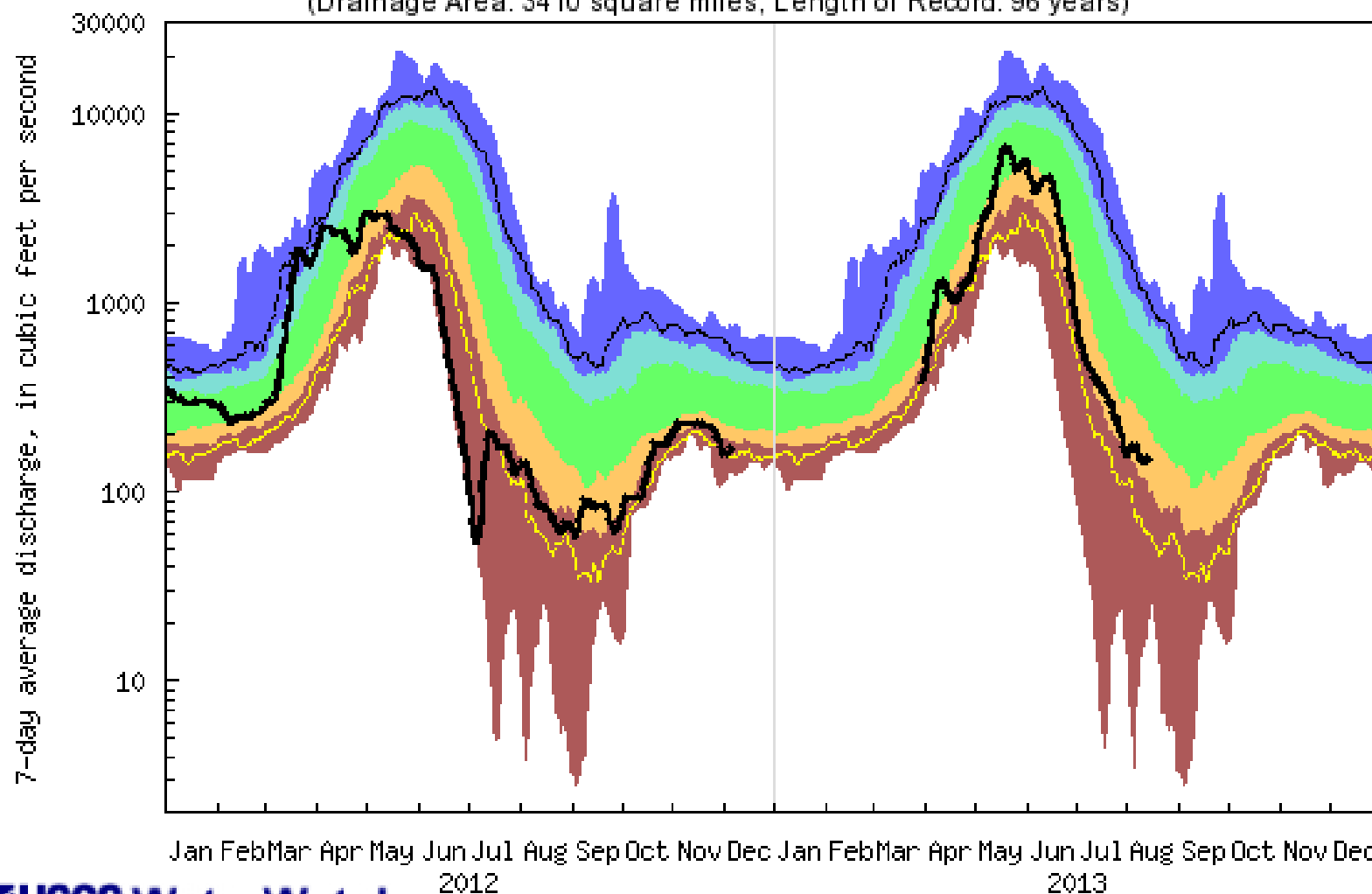
STREAMFLOW: Green River nr LaBarge



Explanation - Percentile classes						Flow
						
lowest-10th percentile	5	10-24	25-75	76-90	95	
Much below Normal	Below normal	Normal	Above normal	Much above normal	90th percentile - highest	

STREAMFLOW: Yampa River nr Deerlodge

USGS 09251000 YAMPA RIVER NEAR MAYBELL, CO
(Drainage Area: 3410 square miles, Length of Record: 96 years)

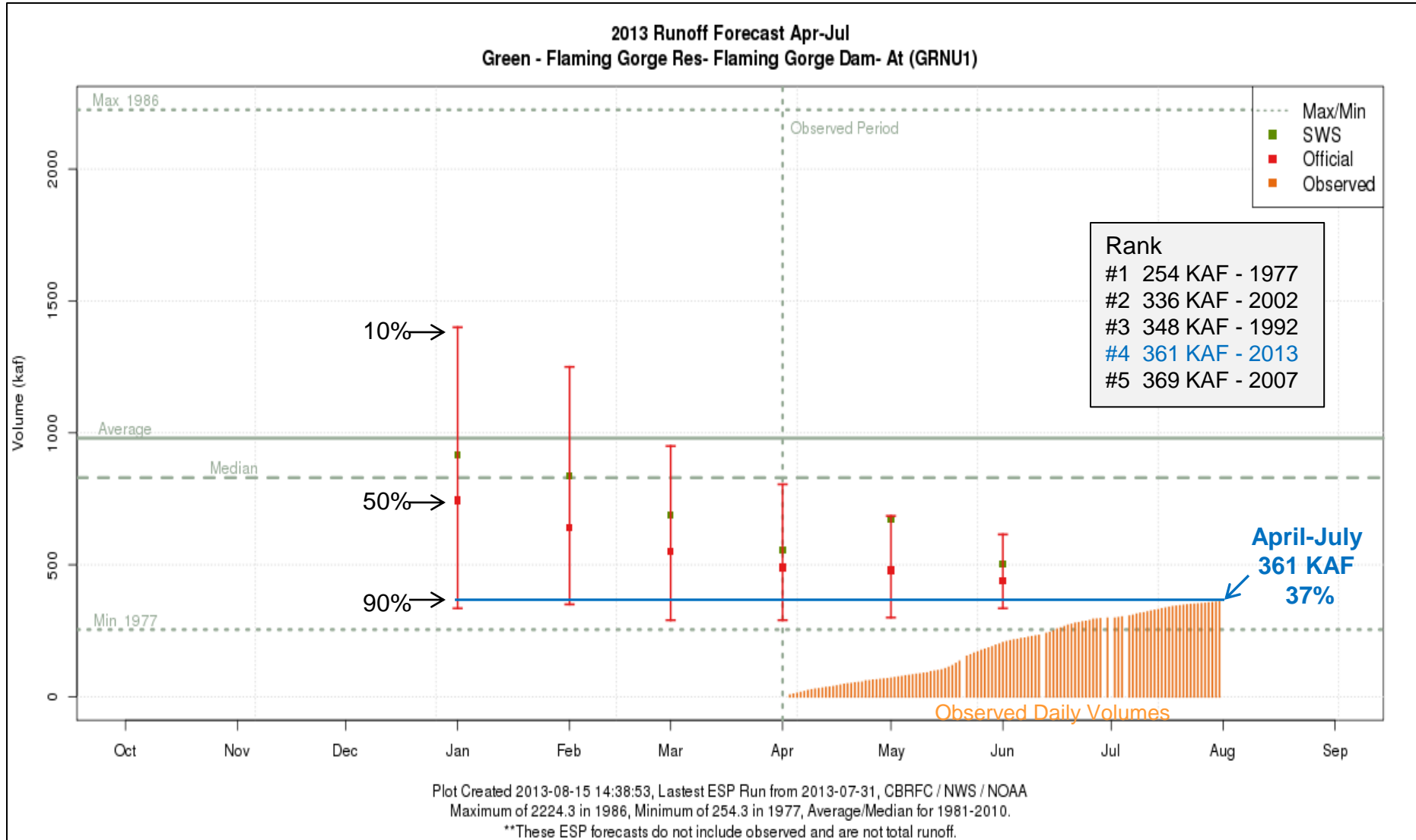


USGS WaterWatch

Last updated: 2013-08-15

Explanation - Percentile classes							
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile -highest	Flow
Much below Normal	Below normal	Normal	Above normal	Much above normal			

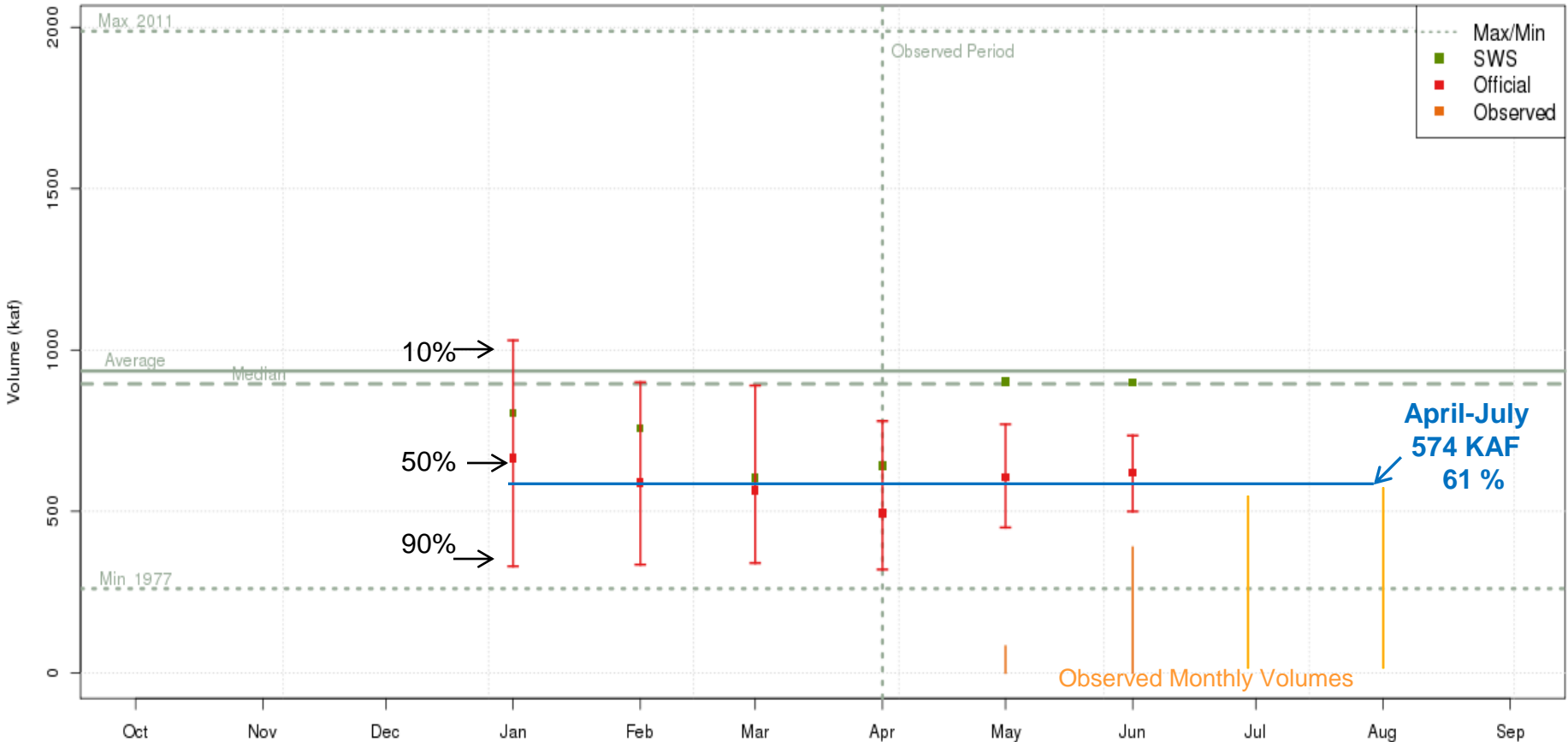
April-July Water Supply: Flaming Gorge





April-July Water Supply: Yampa

2013 Runoff Forecast Apr-Jul
Yampa - Maybell- Nr (MBLC2)



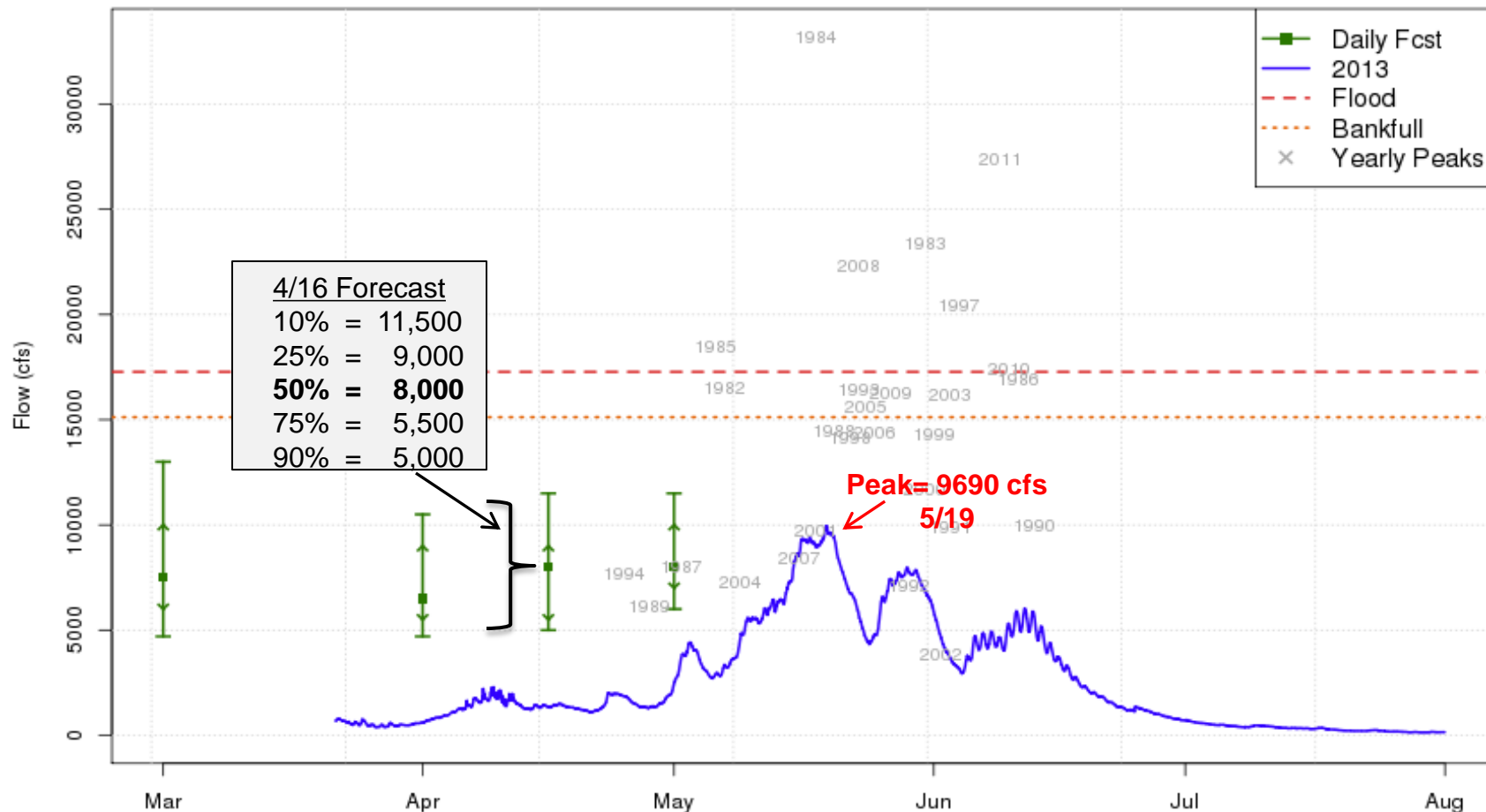
Plot Created 2013-08-15 14:45:49, Lastest ESP Run from 2013-07-31, CBRFC / NWS / NOAA

Maximum of 1987.9 in 2011, Minimum of 260.6 in 1977, Average/Median for 1981-2010.

**These ESP forecasts do not include observed and are not total runoff.

Yampa-Deerlodge Peak Flow Forecast

2013 Peak Flow Forecast
Yampa - Deerlodge Park (YDLC2)

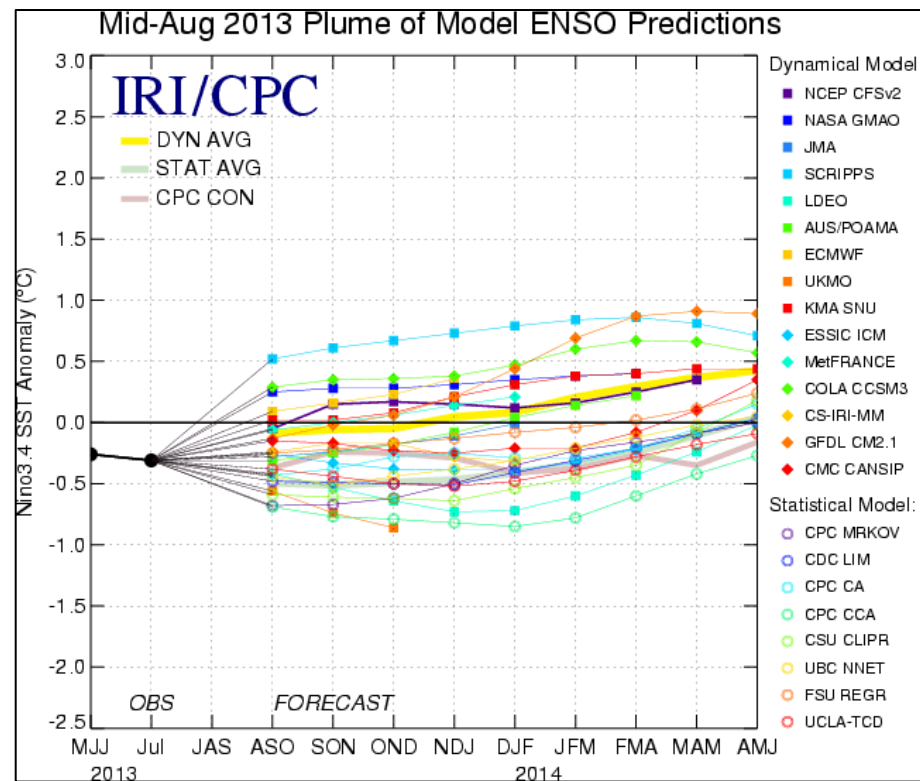
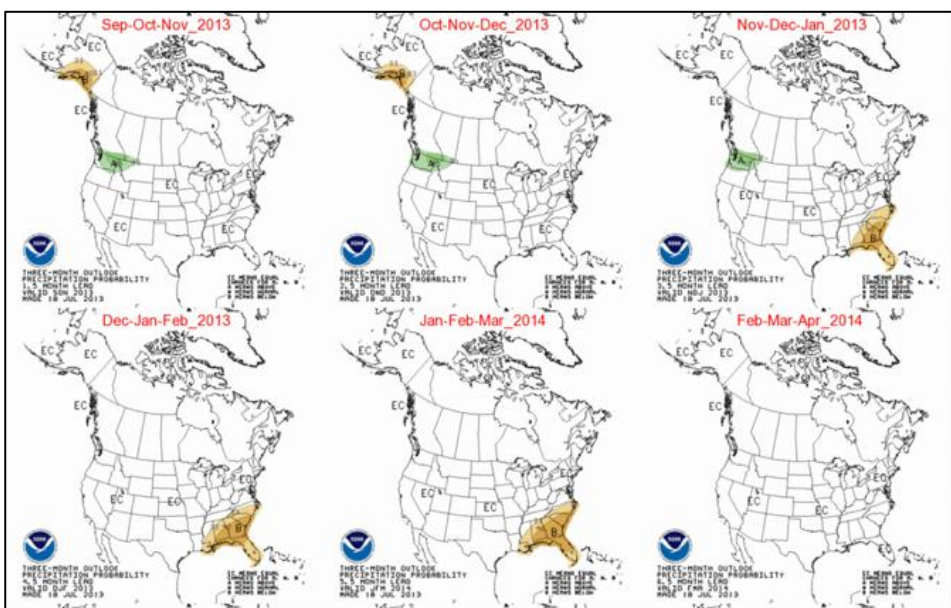
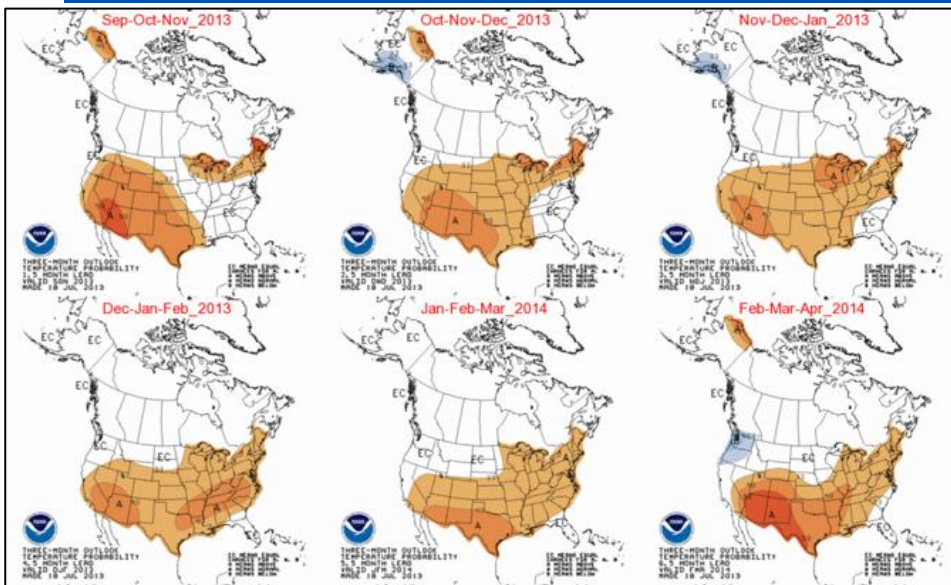


Plot Created 2013-08-16 11:02:17, CBRFC / NWS / NOAA

Maximum peak of 33200 on 1984-05-18, Minimum peak of 3810 on 2002-06-02

Earliest peak of 7670 on 1994-04-25, Latest peak of 9960 on 1990-06-13

Yearly Peaks are Instantaneous (Inst). Previous year data are Mean Daily (Daily).



ENSO FORECAST :
WY 2014 = Neutral Conditions



Water Supply Forecasts: 8/1



Flaming Gorge Inflow

August	September	October
30 KAF 34%	24 KAF 44%	28 KAF 48%

Yampa nr Maybell

October	November	December
14 KAF 57%	15 KAF 65%	12 KAF 64%

Below average flows forecasted for both basins



Feedback, Questions, Concerns always welcome....



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